

5 What is claimed is:

1. A communication system comprising:

a mobile unit having a processor, a memory, and a wireless modem for automatically generating a status report periodically, wherein the status report is formatted for transmission according to an electronic mail protocol; and

10 a user interface unit receiving the status report and displaying the status report according to a predefined report format, wherein the user interface unit is geographically remote to the mobile unit.

2. The system of claim 1, wherein the status report is transmitted from the mobile  
15 unit to the user interface unit according to one of SMTP, POP, IMAP, MIME, RFC-822, and Instant Messaging (IM) protocols.

3. The system of claim 1, wherein the mobile unit further comprises a detection  
20 component coupled to the processor, wherein the detection component comprises a sensor for measuring a physical parameter.

4. The system of claim 1, wherein the mobile unit further comprises a means for determining a position of the mobile unit.

25 5. The system of claim 1, wherein the mobile unit further comprises a receiver for receiving positioning data from satellites, allowing the processor to use the positioning data for determining a position of the mobile unit.

6. The system of claim 1, wherein the memory stores the status report for a  
30 predefined length of time after the status report is transmitted to the user interface unit.

7. The system of claim 1 further comprising a plurality of mobile units including the mobile unit, wherein the user interface unit is connected to a backend processing unit for combining status reports generated by the plurality of mobile units .

35

- 5           8.     The system of claim 1, wherein the user interface unit comprises an input device  
for receiving information from a user and an output device for presenting information to a user.
9.     The system of claim 1, wherein the report format is changeable through the user  
interface unit.
- 10           10.    The system of claim 1, wherein the mobile unit reconfigures the status report  
according to a command received from the user interface unit.
11.    The system of claim 1 further comprising a database for manually entered  
15   peripheral data, wherein the peripheral data is used for compliance with the report format.
12.    The system of claim 11, wherein the peripheral data comprise at least one of  
landmarks, maps, speed limits, and traffic light locations for the mobile unit to use as a positional  
reference in the status report, wherein the positional references indicates a position of the mobile  
20   unit.
13.    The system of claim 11, wherein the mobile unit adds landmarks to the database  
for use in the status report.
- 25           14.    The system of claim 1, wherein the user interface unit transmits one or more  
landmarks to the mobile unit for use as a positional reference in the status report.
15.    A mobile communication device comprising:  
a detection component for measuring a physical parameter;  
30   a processor connected to the detection component, wherein the processor is for  
generating a status report incorporating the physical parameter;  
a memory connected to the processor, wherein the memory is for storing the status report;  
and

5 a wireless modem connected to the processor, wherein the wireless modem is for transmitting the status report according to a predetermined electronic mail protocol once the physical parameter fulfills a condition.

16. The device of claim 15, wherein the predetermined electronic mail protocol is one  
10 of SMTP, POP, IMAP, MIME, RFC-822, and Instant Messaging (IM) protocols.

17. The device of claim 15 further comprising a receiver for receiving positioning information, wherein the processor uses the positioning information to determine a location of the mobile unit.

18. The device of claim 17 further comprising a database for storing maps, traffic  
15 light locations, and landmarks for use as a positional reference in the location of the mobile unit.

19. The device of claim 15, wherein the condition is one of:

20 a passage of a predetermined amount of time since a previous transmission;  
a predefined relationship between the physical parameter and a reference value;  
a minimum distance traveled since a previous transmission; and  
a command from an external source to transmit the status report.

20. A method of communication comprising:

obtaining data;

preparing a status report incorporating the data; and

transmitting the status report using one of SMTP, POP, IMAP, MIME, RFC-822, and  
Instant Messaging (IM) protocols if the data satisfies a predefined condition, without receiving  
30 an external command to transmit.

21. The method of claim 20 further comprising determining whether the data fulfills a predefined condition by comparing the data against a reference value.

- 5           22.     The method of claim 20, wherein the data is at least one of position information, calculated information, physical parameters, and environmental parameters.
23.     The method of claim 20 further comprising time-stamping the status report.
- 10           24.     The method of claim 20 further comprising storing the status report for a predetermined period of time.
25.     The method of claim 20 further comprising counting a length of distance traveled or time passed since a previous transmission to determine if the data satisfies the predefined  
15     condition.
26.     The method of claim 20 further comprising reconfiguring the status report in response to a command, wherein the command is received in an e-mail format.
- 20           27.     The method of claim 20 further comprising:  
            comparing the data against an emergency condition; and  
            transmitting an alert signal if the data satisfies the emergency condition.
28.     The method of claim 20 further comprising:  
25     receiving an enabling command for adding new data to a database; and  
            adding new data to the database before receiving a disabling command for disabling addition of new data to the database.
29.     The method of claim 20 further comprising preparing the status report in a  
30     human-readable format such that no format conversion is necessary before the status report is presented to a viewer.
30.     The method of claim 29, wherein the human-readable format is one of HTML and text format.
- 35

5           31.     The method of claim 20 further comprising preparing the status report in a standard application format.

          32.     The method of claim 20 further comprising encrypting the status report prior to transmission.

10           33.     The method of claim 20 further comprising:  
          receiving a message in one of SMTP, POP, IMAP, MIME, RFC-822, and Instant Messaging (IM) protocols; and  
          authenticating the received message.

15           34.     A method of reconfiguring a remote unit, the method comprising:  
          encapsulating a command in an electronic mail format such that the command is extractable; and  
          transmitting the command via an electronic mail protocol.

20           35.     A mobile device for communication via a wireless network, comprising:  
          means for obtaining physical data and positioning data;  
          means for preparing a status report using the physical data and the positioning data; and  
          means for transmitting the status report in an electronic mail format without receiving an  
25   external command.

          36.     Computer instructions for communication via a wireless network, comprising:  
          computer-readable instructions for obtaining physical data and positioning data;  
          computer-readable instructions for preparing a status report using the physical data and  
30   the positioning data; and  
          computer-readable instructions for transmitting the status report in an electronic mail format without receiving an external command.